

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: Cupp, Mary S.
Ribeiro, Jose M.C.
Cupp, Eddie W.
Swaim, Steven F.

(ii) TITLE OF INVENTION: RECOMBINANT VASOACTIVE PROTEIN FROM
SALIVARY GLAND OF THE BLACK FLY

(iii) NUMBER OF SEQUENCES: 5

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: W. Murray Spruill (Alston & Bird, LLP)
(B) STREET: 3605 Glenwood Ave. Suite 310
(C) CITY: Raleigh
(D) STATE: NC
(E) COUNTRY: USA
(F) ZIP: 27622

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER:
(B) FILING DATE:
(C) CLASSIFICATION:

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Spruill, W. Murray
(B) REGISTRATION NUMBER: 32,943
(C) REFERENCE/DOCKET NUMBER: 5721-4A

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: 919 420 2202
(B) TELEFAX: 919 881 3175

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 548 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: CDS

(B) LOCATION: 49..507

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

CTGAAGTGTA AAGTACTTAA ATCATTTCGGT GGGAATTATC CAGCAAGT ATG AGC ATC	57
Met Ser Ile	
1	
ACA CAA AGC TTC TTT GTT TTA ACC CTT GCC ATA TTT GGT GCT GCA TCA	105
Thr Gln Ser Phe Phe Val Leu Thr Leu Ala Ile Phe Gly Ala Ala Ser	
5 10 15	
GAC AAC CCA ATT GCT GAT AGA AAA TGT ATC GTC ATC AGT GAC GGG GAC	153
Asp Asn Pro Ile Ala Asp Arg Lys Cys Ile Val Ile Ser Asp Gly Asp	
20 25 30 35	
CTG GTT ATG CAC GAG CGA AAA CCC GGT CAA GAG TTC CCA TAC TAT GTC	201
Leu Val Met His Glu Arg Lys Pro Gly Gln Glu Phe Pro Tyr Tyr Val	
40 45 50	
TAC ATG ATC CCG AAG GGT ACA GAG TAC GAC GAT CAA CGA TGG ATC CTG	249
Tyr Met Ile Pro Lys Gly Thr Glu Tyr Asp Asp Gln Arg Trp Ile Leu	
55 60 65	
GAG AGT GTG GGA GGA GAT CAC TAT AAG CTG AAG AAC AAG TTT TCC GGA	297
Glu Ser Val Gly Gly Asp His Tyr Lys Leu Lys Asn Lys Phe Ser Gly	
70 75 80	
CGG TAT TTG GTG TAT GGC ACC TTT GAT TAT TTC CTC ACG GCA GGA GCA	345
Arg Tyr Leu Val Tyr Gly Thr Phe Asp Tyr Phe Leu Thr Ala Gly Ala	
85 90 95	
GCC GTC AGA GAG ATG GAT CAT TTC AAA TTC ACT GCT GAT GGG ACG GGC	393
Ala Val Arg Glu Met Asp His Phe Lys Phe Thr Ala Asp Gly Thr Gly	
100 105 110 115	
AAG TAT GAC ATC TCT AGC AAA GCG AAT GGT CAT CCT CGA TCT CGC GGC	441
Lys Tyr Asp Ile Ser Ser Lys Ala Asn Gly His Pro Arg Ser Arg Gly	
120 125 130	
AAA AAT TGG GGA GTC ATG AAA GAT GGT GAG AAG CAC TAT TTC ACT GTT	489
Lys Asn Trp Gly Val Met Lys Asp Gly Glu Lys His Tyr Phe Thr Val	
135 140 145	
GAA AAT TGT CAG GAA TAA TAAATAAGAA ATGTTGAAGT TGAAAAAAAAA	537
Glu Asn Cys Gln Glu *	
150	
AAAAAAAAAA A	548

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 153 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Met	Ser	Ile	Thr	Gln	Ser	Phe	Phe	Val	Leu	Thr	Leu	Ala	Ile	Phe	Gly	
1				5					10					15		
Ala	Ala	Ser	Asp	Asn	Pro	Ile	Ala	Asp	Arg	Lys	Cys	Ile	Val	Ile	Ser	
			20					25					30			
Asp	Gly	Asp	Leu	Val	Met	His	Glu	Arg	Lys	Pro	Gly	Gln	Glu	Phe	Pro	
		35					40					45				
Tyr	Tyr	Val	Tyr	Met	Ile	Pro	Lys	Gly	Thr	Glu	Tyr	Asp	Asp	Gln	Arg	
	50					55					60					
Trp	Ile	Leu	Glu	Ser	Val	Gly	Gly	Asp	His	Tyr	Lys	Leu	Lys	Asn	Lys	
65					70					75					80	
Phe	Ser	Gly	Arg	Tyr	Leu	Val	Tyr	Gly	Thr	Phe	Asp	Tyr	Phe	Leu	Thr	
				85					90					95		
Ala	Gly	Ala	Ala	Val	Arg	Glu	Met	Asp	His	Phe	Lys	Phe	Thr	Ala	Asp	
			100					105					110			
Gly	Thr	Gly	Lys	Tyr	Asp	Ile	Ser	Ser	Lys	Ala	Asn	Gly	His	Pro	Arg	
		115					120					125				
Ser	Arg	Gly	Lys	Asn	Trp	Gly	Val	Met	Lys	Asp	Gly	Glu	Lys	His	Tyr	
	130					135					140					
Phe	Thr	Val	Glu	Asn	Cys	Gln	Glu	*								
145					150											

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Gly Lys Asn Trp Gly Val Met Lys Asp Gly Glu Lys His Tyr Phe Thr
 1 5 10 15

Val Glu Asn Cys Gln Glu
 20

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 15 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Lys Pro Gly Gln Glu Phe Pro Tyr Tyr Val Tyr Met Ile Pro Lys
 1 5 10 15

(2) INFORMATION FOR SEQ ID NO:5:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 109 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Lys Pro Gly Gln Glu Phe Pro Tyr Tyr Val Tyr Met Ile Pro Lys Gly
 1 5 10 15

Thr Glu Tyr Asp Asp Gln Arg Trp Ile Leu Glu Ser Val Gly Gly Asp
 20 25 30

His Tyr Lys Leu Lys Asn Lys Phe Ser Gly Arg Tyr Leu Val Tyr Gly
 35 40 45

Thr Phe Asp Tyr Phe Leu Thr Ala Gly Ala Ala Val Arg Glu Met Asp
 50 55 60

His Phe Lys Phe Thr Ala Asp Gly Thr Gly Lys Tyr Asp Ile Ser Ser
 65 70 75 80

Lys Ala Asn Gly His Pro Arg Ser Arg Gly Lys Asn Trp Gly Val Met

85 90 95
Lys Asp Gly Glu Lys His Tyr Phe Thr Val Glu Asn Cys
100 105